

IAEA-CYTED-UNECE Workshop on UNFC– 2009 Applications in Uranium and Thorium Resources: Focus on Comprehensive Extraction, 9-12 July 2013, Santiago, CHILE

REPORTING URANIUM RESOURCE AND PROJECT ACTIVITIES FOR 2012-2013

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OUTLINE

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Introduction (1/2)

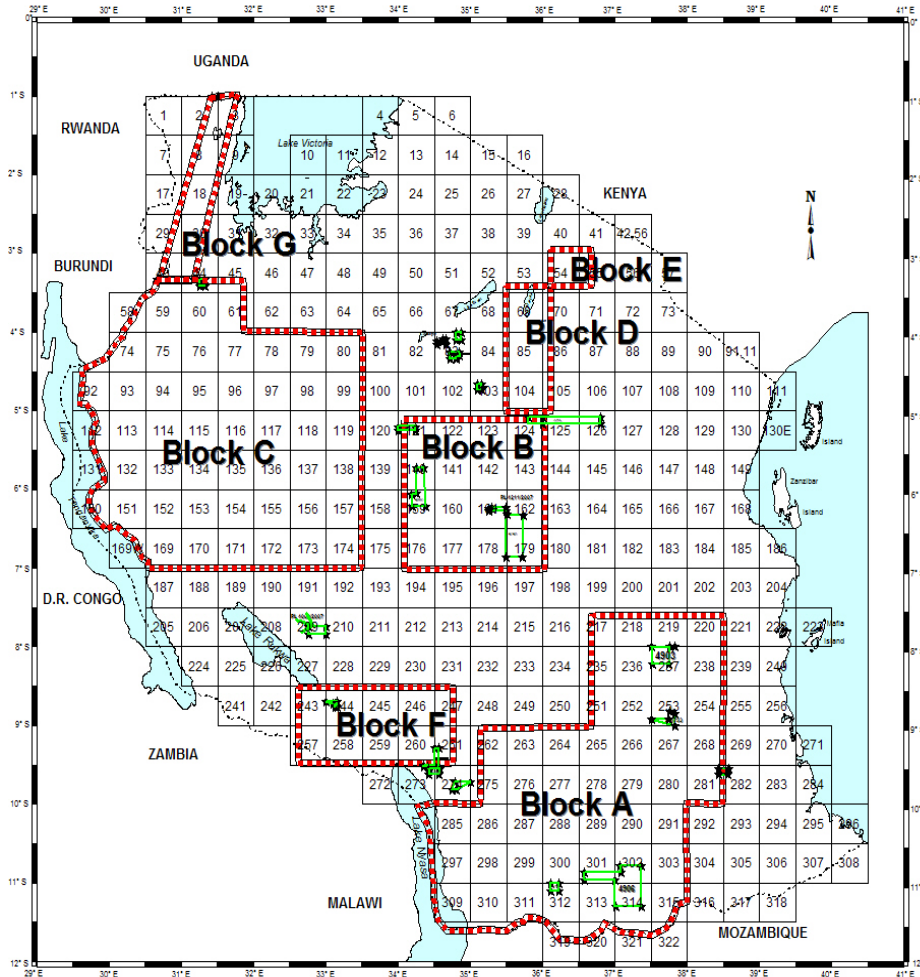
- **Tanzania has several uranium projects at various stage of Development**
- **Over 40 Uranium exploration companies**
- **Set a regulatory framework for U**
- **UNFC 2009 –progresses well**
- **Opposition: Civil Societies and foreign sponsored organization set opposition**
- **Public awareness - Important**

Uranium Exploration (1)

- Uranium exploration mapping in the country was done in 1970's
- Trade Liberalization opened doors for foreign exploration companies
- Over 40 uranium companies have prospecting licenses
- Legally required to report to the government quarterly

Uranium Exploration (2)

Location of blocks of uranium airborne anomalies



- A. Karroo Sandstone, vein like (unconformity)
- B. Singida and Dodoma- Surficial
- C. Tabora and Kigoma Calcrete, vein like (unconformity), intraintrusive (granites), sandstones
- D. Minjingu and Galappo Sedimentary (phosphate), intra-intrusive(carbonatite)
- E. Monduli-Tarosero Volcanics
- F. Mbeya-Njombe Sedimentary (black shales), intra-intrusive (carbonatite), veinlike (unconformity)
- G. Bukoba Vein like(unconformity), intra-intrusive (granite), sandstone



URANIUM EXPLORATION COMPANIES

NO	NAME OF EXPLORATION COMPANY	NO	NAME OF EXPLORATION COMPANY
1	Atomic Minerals Ltd	23	IBIS Resources Ltd
2	Baseline Resources Ltd	24	Japan Investment Co Ltd
3	Douglas Lake Minerals Inc	25	Kibo Mining PLC
4	Edenville Energy Plc	26	Kilimanjaro Mining Company, Inc
5	Jacana Resources Ltd	27	Kinti Mining Ltd
6	Japan Oil	28	Mantra Resources Ltd
7	Karoo Exploration Corp	29	Minergy Tanzania Ltd
8	Korea Resources Corp	30	Montero Mining and Exploration Ltd
9	Mineral Evaluation Ltd	31	Omegacorp Ltd
10	Nyanza Goldfields Ltd	32	Pula Group LLC
11	Peak Resources Ltd	33	Sterling Resources Ltd
12	Sabre Resources Ltd	34	Sub-Sahara Resources NL
13	Universal Power Corp	35	Tanganyika Uranium Corp
14	WTF Resources Ltd	36	Tanzania Minerals Corp
15	Bahati Investment and Mining General Co Ltd	37	TanzOz Uranium Ltd
16	Canaco Resources Inc	38	Trimark Explorations Ltd
17	Central Iron Ore Ltd	39	Troll Mining Ltd
18	East Africa Resources Ltd	40	Uranex NL
19	Frontier Resources Ltd	41	Uranium Hunter Corporation
20	Gas and Metal National Corporation	42	Uranium Resources plc
21	Globe Metals & Mining Ltd	43	Vision Geosources Co Ltd
22	IBI Corporation, Gambaro Resources		



UNFC URANIUM CLASSIFICATION



URANIUM RESOURCES (1)

Courtesy of Hari Tulsidas

No	Deposit	Operator	Deposit Type	Resources (tU)	Average Grade (%U)	UNFC Class	UNFC Sub Class	E	F	G
1	Manyoni district (6 deposits)	Uranex NL	Surficial - (lacustrine-playa)	11125	0.022	Potentially commercial project	Development Pending	2	2.1	1+2+3
2	Nyota	Uranium One	Sandstone (tabular)	55135	0.025	Potentially commercial project	Development	2	2.1	1+2+3
3	Likuyu North	Uranex NL	Sandstone (tabular)			Exploration project		3.2	3	4
4	Likuyu South	Uranex NL	Sandstone (tabular)			Exploration project		3.2	3	4



URANIUM RESOURCES (2)

No	Deposit	Operator	Deposit Type	Resources (tU)	Average Grade (%U)	UNFC Class	UNFC Sub Class	E	F	G
5	Mteramwahi South	Uranex NL	Sandstone (tabular)			Exploration Project		3.2	3	4
6	Mteramwahi North	Uranex NL	Sandstone (tabular)			Exploration Project		3.2	3	4
7	Matemanga	Uranex NL	Sandstone (tabular)			Exploration Project		3.2	3	4
8	Bahi	Uranex NL	Surficial – (lacustrine-playa)			Exploration project		3.2	3	4
9	Itigi	Uranex NL	Surficial – (lacustrine-playa)			Exploration project		3.2	3	4



Implementation of the project action plan (1/3)

Stakeholders

- Tanzania Atomic Energy Commission
- Mineral of Energy and Minerals
- National Environmental Management Council
- Vice President Office-Environment
- Ministry of Natural Resources and Tourism
- Ministry of Transport-Regulatory Authority
- Tanzania Mineral Audits Authority

... action plan (2/3)

Training/Awareness courses

- Members of parliament
- The Media

International Media

- BBC World Service
- Deutsche Welle (DW)

Broadcast Media

- Television

Radio

- Local language and English

Print – Media

Implementation (3/3)

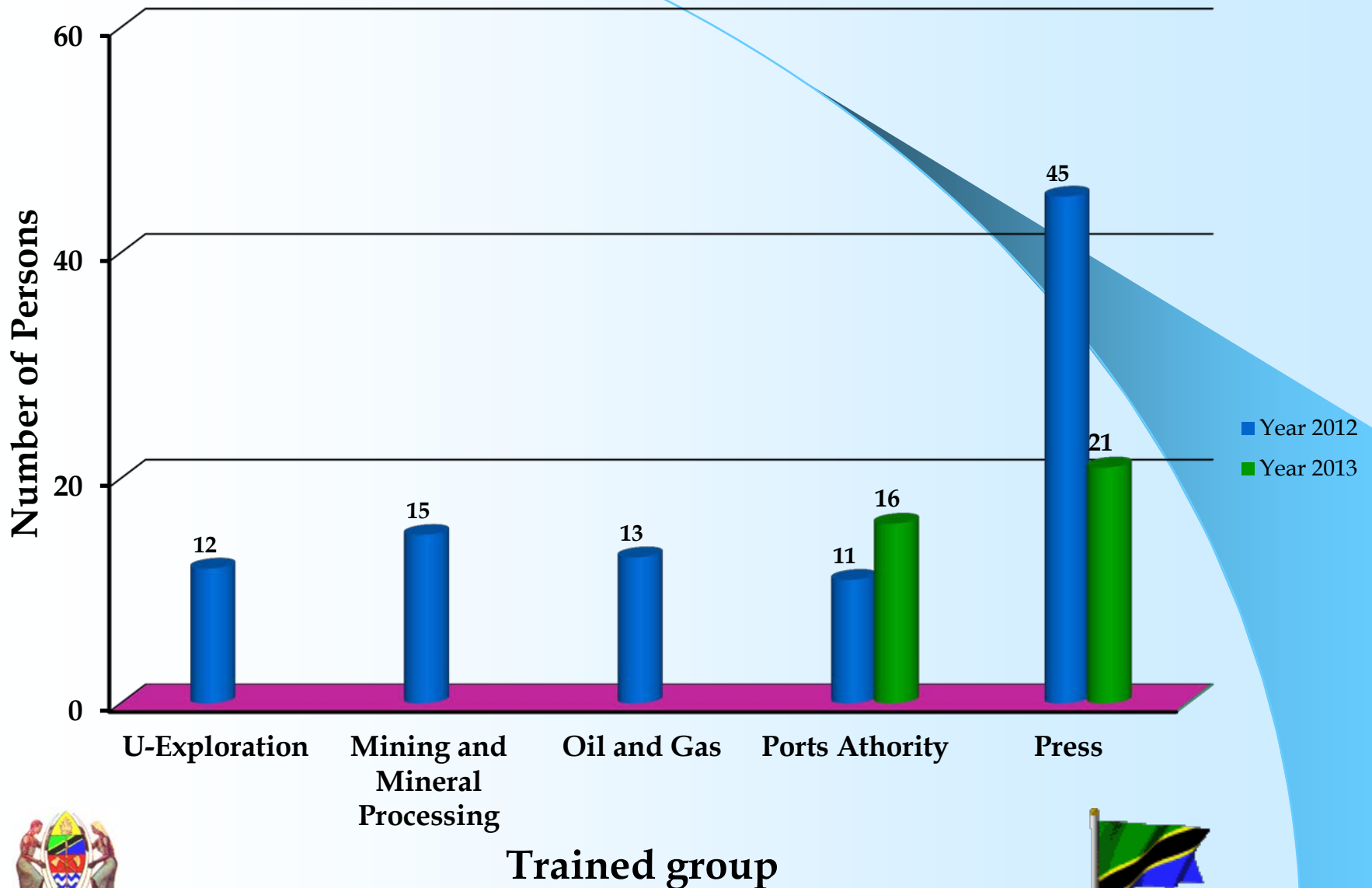
Training Courses

Occupationally Exposed Workers

- ✓ In Uranium Exploration
- ✓ Transport Sector- Port Authority
- ✓ Oil and Gas Exploration



NATIONAL TRAINING COURSES



IAEA SUPPORT/INPUTS



IAEA Uranium Production Site Appraisal Team

Terms of Reference (1/2)

- **Regulatory System**
 - Review the Atomic Energy Act
 - Review of the Safety Guide for radiation safety in mining and processing of uranium
 - Review inspection, authorization and enforcement manual and procedures;
 - Advice on preparation of a “Code of Practice” focused on operational, public and environmental health and safety
 - **Implementation of international good practices in uranium resources reporting, such as the United Nations Framework Classification (UNFC 2009) as a regulatory requirement.**
 - Recommend on the harmonization of different regulatory authorities regulations for uranium production cycle
 - Organization and management of TAEC, Ministry of Energy and Minerals, companies, other stake holders and definition and co-ordination of roles and responsibilities.
- **Sustainable Uranium Production and Life-Cycle**
 - Review of the exploration, potentially commercial and commercial projects
 - Techno-feasibility and resource development work
 - Socio-economics of the planned / proposed projects
 - Construction management
 - Mining and processing engineering design and operations
 - Support operations
 - Quality assurance
 - Tailings and mine / processing plant waste management
 - Decommissioning planning
 - Environmental remediation planning



UPSAT Mission –Terms of Reference (2/2)

- **Safety and Environment**

- Environmental impact assessment
- General safety
- Mining safety
- Radiation protection
- Monitoring systems
- Emergency planning and preparedness
- Site security management

- **Social Licensing**

- Stakeholder mapping, relations and engagement
- Assist in strategising stakeholder involvement
- Public awareness of uranium mining/production activities
- Risk communications, with both direct and indirect stakeholders

- **Capacity Building**

- Human Resources Development and training of key personnel for implementation of the regulations
- Procurement of appropriate equipment and training of personnel for implementation of the regulations



Challenges

- **Lack of Exploration Budgets**
- **Capacity Building in U life cycle still needed**
- **Private Exploration companies do not give information – proprietary rights**
- **Resource Reporting using UNFC system**
- **No uranium policy to support the industry**
- **Social Licensing**
- **Harmonization of Regulatory Functions**



Conclusion

**The government is determined to
implement the IAEA**

UPSAT Mission Technical

**Recommendations toward uranium life
cycle best practice**



Thank you for your Attention

